

Cooperative Catalysis for Chemical Synthesis

Karl Scheidt

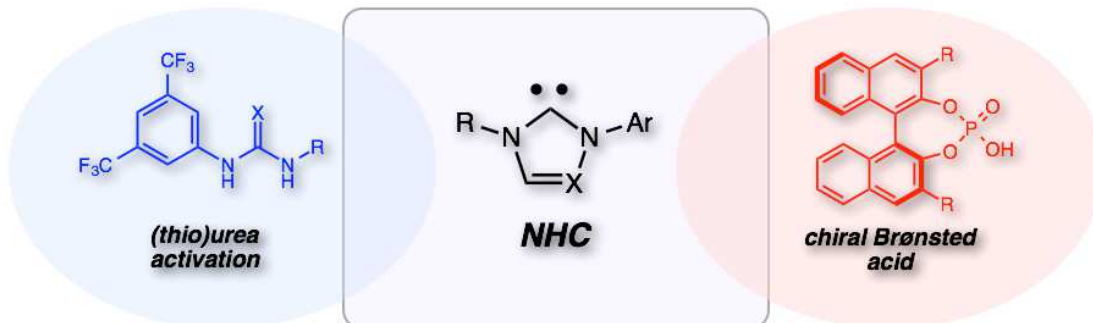
Department of Chemistry, Department of Pharmacology, Center for Molecular Innovation and Drug Discovery, 2145 Sheridan Road, Evanston, IL 60208

Northwestern University
USA

scheidt@northwestern.edu

N-heterocyclic carbenes (NHCs) have tremendous versatility as ligands for transition metals and as highly selective organocatalysts. Our research program has pioneered the development of NHCs as unique Lewis base catalysts for stereoselective C–C and C–N bond forming processes involving unique homoenolate and enolate reactivity. These new metal-free, catalytic reactions provide immense opportunities for development and application in target synthesis. This presentation will describe our recent discoveries in the area of cooperative catalysis and the applications to the synthesis of medically relevant natural products.

Cooperative Organocatalysis



*innovative chemical reactivity • new reaction development
enabling strategies for synthesis*